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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,659	03/15/2002	Jeffrey A. Tilton	25102A	2971

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EXAMINER	
CHRISS, JENNIFER A	
ART UNIT	PAPER NUMBER
1794	
MAIL DATE	DELIVERY MODE
01/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/099,659	TILTON, JEFFREY A.	
	Examiner	Art Unit	
	JENNIFER A. CHRISS	1794	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/12/08*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1, 5 – 7, 9 – 19, 21 – 26 and 30 – 35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 5 – 7, 9 – 19, 21 – 26 and 30 – 35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The Applicant's Amendments and Accompanying Remarks, filed September 12, 2008, have been entered and have been carefully considered. Claim 1 is amended, claims 2 - 4, 8, 20 and 27 - 29 are cancelled, claims 30 - 35 are added and claims 1, 5 – 7, 9 – 19, 21 – 26 and 30 – 35 are pending. In view of Applicant's amendment of claim 1 incorporating the limitations of previous claim 20, the Examiner withdraws the rejection of claims 1, 5 – 7, 9 – 19 and 21 - 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goettmann (US 5,851,355) as evidenced by Yamaguchi et al. (US 6,977,111). Additionally, the Examiner has revised the previously applied rejection over Nagata et al. below to account for Applicant's amendments and addition of claims 30 - 35. The invention as currently claimed is not found to be patentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

3. Claims 13 and 30 – 31 are objected to because of the following informalities:

a. Claim 13 appears to be a duplicate of claim 9. Please correct.

b. "Bicomponent" is misspelled in claim 30. Please correct.

c. Claim 31 depends from itself. For purposes of examination, the Examiner will assume Applicant intended the claim to depend from claim 30. Please correct.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 30 is rejected under 35 U.S.C. 102(b) as being anticipated by Nagata et al. (US 6,165,921).

Nagata et al. is directed to a fibrous acoustical material for reducing noise transmission (Title).

As to claim 30, Nagata et al. teach an acoustical material comprising first, second and third fibers. The first fibers have first softening point and comprise 10 - 90% by weight of the total weight of the fibers (Abstract and column 2, lines 45 - 55). The second fibers has a second softening point which is at least 30 degrees C lower than the first softening point and comprise 5 – 85% by weight of the fibers (Abstract and column 2, lines 45 – 55). The third fibers have a third softening point which is lower than the second softening point and at least 80 degrees C lower than the first softening point and comprise 5 – 85% by weight of the fibers (Abstract and column 2, lines 45 – 55).

The first fiber is preferably a polyester fiber having a length of 20 – 100 mm (column 3, lines 19 – 45 and column 5, lines 55 – 69). The Examiner submits a fiber having a length between 20 - 100 mm is considered to be a "staple fiber" as claimed. The Examiner equates the first fibers to Applicant's "staple fibers". The second fibers can comprise a modified polyester fiber with a sheath-core configuration where the sheath has a softening point ranging from 130 to 200 degrees C (column 4, lines 9 – 30). The second fiber sheath is made of co-polyethylene terephthalate while the core is polyethylene terephthalate (column 3, lines 19 – 30, lines 50 – 55 and column 4, lines 9 – 20); the second fiber would have Applicant's claimed "concentric sheath/core coPET/PET configuration". The third fibers can comprise a modified polyester fiber with a sheath-core configuration where the sheath has a softening temperature ranging from 100 - 170 degrees C and has a lower softening temperature than the polymer constituting the surface of the second fiber (column 4, lines 30 - 68 and column 5, lines 1 - 10). The third fiber sheath is made of a co-polyethylene terephthalate while core is polyethylene terephthalate (column 3, lines 19 – 30, column 4, lines 64 – 69, column 5, lines 1 - 10). The Examiner equates the second fibers to Applicant's "high melt bicomponent fibers" and the third fibers to Applicant's "low melt bicomponent fibers". The average fineness of the first, second and third fibers ranges from 1.5 to 15 denier (column 5, lines 50 – 55). It should be noted that the second fibers of Nagata et al. or Applicant's "high melt bicomponent fibers" have a softening point ranging from 130 to 200 degrees C which overlap with Applicant's claimed melt flow temperature. Additionally, Nagata et al. teach that the second fibers or Applicant's "high melt

bicomponent fibers" (along with the first and third fibers) are preferably polyester-based fibers because of their high melting point of the crystals (column 3, lines 10 - 20). It should be noted that the second fibers are considered to be at least semi-crystalline as Nagata et al. mentions the high melting point of the crystals in the PET meaning that the fibers have some level of crystallinity. According to page 3, 6 and 11 of Applicant's Specification, Applicant discusses bicomponent fibers referred to as crystalline ***or*** semi-crystalline which have a melt flow temperature of generally about 150 to 180 degrees C and bi-component fibers referred to as crystalline/semi-crystalline which have a melt temperature of generally about 150 to 180 degrees C. Therefore, the Examiner interprets crystalline/semicrystalline to mean crystalline ***or*** semi-crystalline. The Examiner submits that the bicomponent fibers are at least semi-crystalline meeting Applicant's claim.

Claim Rejection - 35 USC § 103

6. Claims 1, 5 – 7, 9 – 19, 21 – 26 and 31 – 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata et al. (US 6,165,921).

Nagata et al. is directed to a fibrous acoustical material for reducing noise transmission (Title).

As to claim 1, Nagata et al. teach an acoustical material comprising first, second and third fibers. The first fibers have first softening point and comprise 10 - 90% by weight of the total weight of the fibers (Abstract and column 2, lines 45 - 55). The second fibers has a second softening point which is at least 30 degrees C lower than

the first softening point and comprise 5 – 85% by weight of the fibers (Abstract and column 2, lines 45 – 55). The third fibers have a third softening point which is lower than the second softening point and at least 80 degrees C lower than the first softening point and comprise 5 – 85% by weight of the fibers (Abstract and column 2, lines 45 – 55). The first fiber is preferably a polyester fiber having a length of 20 – 100 mm (column 3, lines 19 – 45 and column 5, lines 55 – 69). The Examiner submits a fiber having a length between 20 - 100 mm is considered to be a "staple fiber" as claimed. The Examiner equates the first fibers to Applicant's "staple fibers". The second fibers can comprise a modified polyester fiber with a sheath-core configuration where the sheath has a softening point ranging from 130 to 200 degrees C (column 4, lines 9 – 30). The second fiber sheath is made of co-polyethylene terephthalate while the core is polyethylene terephthalate (column 3, lines 19 – 30, lines 50 – 55 and column 4, lines 9 – 20); the second fiber would have Applicant's claimed "concentric sheath/core coPET/PET configuration". The third fibers can comprise a modified polyester fiber with a sheath-core configuration where the sheath has a softening temperature ranging from 100 - 170 degrees C and has a lower softening temperature than the polymer constituting the surface of the second fiber (column 4, lines 30 - 68 and column 5, lines 1 - 10). The third fiber sheath is made of a co-polyethylene terephthalate while core is polyethylene terephthalate (column 3, lines 19 – 30, column 4, lines 64 – 69, column 5, lines 1 - 10). The Examiner equates the second fibers to Applicant's "high melt bicomponent fibers" and the third fibers to Applicant's "low melt bicomponent fibers". The average fineness of the first, second and third fibers ranges from 1.5 to 15 denier

(column 5, lines 50 – 55). It should be noted that the second fibers of Nagata et al. or Applicant's "high melt bicomponent fibers" have a softening point ranging from 130 to 200 degrees C which overlap with Applicant's claimed melt flow temperature. Additionally, Nagata et al. teach that the second fibers or Applicant's "high melt bicomponent fibers" (along with the first and third fibers) are preferably polyester-based fibers because of their high melting point of the crystals (column 3, lines 10 - 20). It should be noted that the second fibers are considered to be at least semi-crystalline as Nagata et al. mentions the high melting point of the crystals in the PET meaning that the fibers have some level of crystallinity. According to page 3, 6 and 11 of Applicant's Specification, Applicant discusses bicomponent fibers referred to as crystalline ***or*** semi-crystalline which have a melt flow temperature of generally about 150 to 180 degrees C and bi-component fibers referred to as crystalline/semi-crystalline which have a melt temperature of generally about 150 to 180 degrees C. Therefore, the Examiner interprets crystalline/semicrystalline to mean crystalline ***or*** semi-crystalline. The Examiner submits that the bicomponent fibers are at least semi-crystalline meeting Applicant's claim.

As to claims 9, 12 - 13 and 35, Nagata et al. teach that the first fiber, or Applicant's "staple fibers", are preferably a polyester fiber having a length of 20 – 100 mm (column 3, lines 19 – 45 and column 5, lines 55 – 69).

As to claims 14 – 15, 17 - 18 and 34, Nagata et al. teach that the second fiber sheath is made of co-polyethylene terephthalate while the core is polyethylene terephthalate (column 3, lines 19 – 30, lines 50 – 55 and column 4, lines 9 – 20) and the

third fiber sheath is made of a co-polyethylene terephthalate while core is polyethylene terephthalate (column 3, lines 19 – 30, column 4, lines 64 – 69, column 5, lines 1 - 10). The Examiner equates these configurations to Applicant's claimed "concentric sheath/core coPET/PET configuration". The Examiner submits that these bicomponent fibers are sheath-core copolyester/polyethylene terephthalate as required by Applicant.

As to claim 16, Nagata et al. teach that the third fibers or Applicant's "low melt bicomponent fibers have a softening temperature ranging from 100 - 170 degrees C column 4, lines 30 - 68 and column 5, lines 1 - 10).

As to claim 19, Nagata et al. teach that the second fibers or Applicant's "high melt bicomponent fibers" have a softening point ranging from 130 to 200 degrees C (column 4, lines 9 – 30).

As to claims 1 and 31 - 33, Nagata et al. teach the claimed invention above but fails to teach that the average fiber diameter is between about 18 – 22 microns, between about 16 – 24 microns and between about 10 – 30 microns. It is reasonable to presume that average fiber diameter is between about 18 – 22 microns, between about 16 – 24 microns and between about 10 – 30 microns is inherent to Nagata et al. Support for said presumption is found in the use of like materials (i.e. a nonwoven made of a PET staple fiber, a low melt bicomponent co-PET/PET fiber and a high melt bicomponent co-PET/PET within Applicant's claimed ranges with an average fineness ranging from 1.5 to 15 denier) which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the

presently claimed properties would obviously have been present once the Nagata et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977). Reliance upon inherency is not improper even though the rejection is based on Section 103 instead of 102. *In re Skoner*, et al. (CCPA) 186 USPQ 80. Alternatively, Nagata et al. disclose the claimed invention except for that the average diameter of the fibers is between about 18 – 22 microns, between about 16 – 24 microns and between about 10 – 30 microns. It should be noted that average fiber diameter is a result effective variable. Nagata et al. teach that the average fineness ranges from 1.5 to 15 denier. It should be noted that denier and diameter of fibers are related and dependent on the density of the particular fiber being measured. Nagata et al. note that a nonwoven having an average denier of less than 1.5 deniers is too light in weight and a nonwoven having a denier greater than 20 creates nonwoven web having too low of a ratio between the surface area and the cross section resulting in low energy absorption (column 5, lines 10 - 50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a nonwoven having the average fiber diameter between about 18 – 22 microns, between about 16 – 24 microns and between about 10 – 30 microns since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the average fiber diameter based on the desired acoustic qualities of the fibrous material.

As to claims 5 – 7, 10 – 11 and 21 – 26, although Nagata et al. do not explicitly teach the claimed flexural strength of between about 40 – 1200 psi as required by claim 5, the material has the acoustical absorption coefficients as shown in claims 6, 10 and 21 - 26, the material has thermal conductivity value of between about 0.20 and 0.30 at 2 pcf density as required by claims 7 and 11, it is reasonable to presume that the claimed flexural strength of between about 40 – 1200 psi as required by claim 5, the material has the acoustical absorption coefficients as shown in claims 6 and 10, the material has thermal conductivity value of between about 0.20 and 0.30 at 2 pcf density as required by claims 7 and 11 and the acoustical absorption coefficients as shown in claims 21 – 26 is inherent to Nagata et al.. Support for said presumption is found in the use of like materials (i.e. a nonwoven made of a PET staple fiber, a low melt bicomponent co-PET/PET fiber and a high melt bicomponent co-PET/PET within Applicant's claimed ranges with an average fineness ranging from 1.5 to 15 denier) which would result in the claimed property. The burden is upon the Appellant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of flexural strength of between about 40 – 1200 psi as required by claim 5, the material has the acoustical absorption coefficients as shown in claims 6 and 10, the material has thermal conductivity value of between about 0.20 and 0.30 at 2 pcf density as required by claims 7 and 11 and the acoustical absorption coefficients as shown in claims 21 – 26 would obviously have been present once the Nagata et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977). Reliance upon inherency is not

improper even though the rejection is based on Section 103 instead of 102. *In re Skoner*, et al. (CCPA) 186 USPQ 80.

Response to Arguments

7. Applicant's arguments filed September 12, 2008 have been fully considered but they are not persuasive.

8. Applicant argues that the Examiner has failed to follow the correct procedure upon reversal by the Board. According to MPEP 1214.04, if the examiner has specific knowledge of the existence of a particular reference or references which indicate nonpatentability of any of the appealed claims as to which the examiner was reversed, he or she should submit the matter to the Technology Center (TC) Director for authorization to reopen prosecution under 37 CFR 1.198 for the purpose of entering the new rejection. See MPEP § 1002.02(c) and MPEP § 1214.07. The TC Director's approval is placed on the action reopening prosecution. The Examiner requested approval for the new rejection and was approved as indicated by the Director's signature on the last Office Action. The Examiner submits that the reopening of prosecution was proper.

9. Applicant argues that the anticipation rejection of claim 20 is improper as it requires the presence of each and every element of the claim. It should be noted that claim 20 was previously rejected under 35 USC 103 not 35 USC 102 thus was rendered obvious and not indicated as anticipated by Nagata et al.

10. Applicant argues that Nagata et al. does not expressly describe crystalline/semi-crystalline high melt bi-component fibers. Applicant argues that the Examiner's assertion that the bicomponent coPET/PET fibers of Nagata et al. are crystalline/semi-crystalline fibers is pure speculation and not supported by any evidence. Nagata et al. teach that the second fibers or Applicant's "high melt bicomponent fibers" (along with the first and third fibers) are preferably polyester-based fibers because of their high melting point of the crystals (column 3, lines 10 - 20). It should be noted that the second fibers are considered to be at least semi-crystalline as Nagata et al. mentions the high melting point of the crystals in the PET meaning that the fibers have some level of crystallinity. Applicant indicates that *each and every example provided in Nagata et al. uses amorphous (that is, non-crystalline or semi-crystalline) fibers*. Applicant appears to be equating amorphous to semi-crystalline in their arguments. According to page 3, 6 and 11 of Applicant's Specification, Applicant discusses bicomponent fibers referred to as crystalline ***or*** semi-crystalline which have a melt flow temperature of generally about 150 to 180 degrees C and bi-component fibers referred to as crystalline/semi-crystalline which have a melt temperature of generally about 150 to 180 degrees C . Therefore, the Examiner interprets crystalline/semicrystalline to mean crystalline ***or*** semi-crystalline. The Examiner submits that based on Nagata's comments regarding crystals of PET, the fibers would be at least semi-crystalline as required by the claim. Furthermore, it should be noted that one is not limited to the examples of the disclosure when formulating a rejection. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 440 F.2d 442,

169 USPQ 423 (CCPA 1971). The Examiner submits that the obviousness rejection over Nagata et al. and thus is maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. CHRISS whose telephone number is (571)272-7783. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 6 p.m., first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer A Chriss/
Examiner, Art Unit 1794

/J. A. C./
Examiner, Art Unit 1794